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PN - JP7074285 A 19950317  
PD - 1995-03-17  
PR - JP19940067127 19940405; JP19930080504 19930407  
OPD - 1993-04-07  
TI - SEMICONDUCTOR DEVICE  
IN - YANAGIHARA MANABU;INOUE KAORU;ITO JUNJI;UNO TOMOAKI;  
ISHIKAWA OSAMU;OTA TOSHIMICHI;SAKAI HIROYUKI  
PA - MATSUSHITA ELECTRIC IND CO LTD  
IC - H01L23/12 ; H01L21/60 ; H01P3/08 ; H03F3/60  
CT - JP5037207 A [ ]; JP4273196 A [ ]

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TI - High frequency semiconductor integrated circuit for millimetre wave band - has microstrip wiring board with dielectric film extending on ground conductor and metal wiring line extending on dielectric film  
PR - JP19930080504 19930407;JP19930192166 19930803;JP19930328236 19931224  
PN - JP7074285 A 19950317 DW199520 H01L23/12 012pp  
- US5510758 A 19960423 DW199622 H01P3/08 026pp  
PA - (MATU ) MATSUSHITA DENKI SANGYO KK  
- (MATU ) MATSUSHITA ELEC IND CO LTD  
IC - H01L21/58 ;H01L21/60 ;H01L23/12 ;H01P3/08 ;H03F3/60  
IN - FUJITA S; INOUE K; OTA Y; SAGAWA M; SAKAI H; TAKAHASHI K  
AB - J07074285 The device has a silicon or glass substrate provided with a contact hole (15) through which a grounding conductor (10) is connected to a microstrip wiring pattern (12-14). An interlayer insulating film (11) is placed between the wiring pattern and the grounding conductor.  
- The semiconductor chip (2) which contains the high frequency transistor is mounted onto the wiring pattern by means of solder bumps (40). The wiring pattern is supported by a lead frame (3).  
- ADVANTAGE - High frequency transistor allows device at cut-off frequency of 100 GHz. Allows high density mounting.  
- (Dwg.1/13)  
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AN - 1995-150504 [23]

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- PD - 1995-03-17
- AP - JP19940067127 19940405
- IN - SAKAI HIROYUKI; others.06
- PA - MATSUSHITA ELECTRIC IND CO LTD
- TI - SEMICONDUCTOR DEVICE
- AB - PURPOSE:To realize a high performance submillimeter-millimeter wave semiconductor integrated circuit device having large application at low cost.
- CONSTITUTION:A ground conductor10, an interlayer insulation film 11, wiring conductors 12-14, and a contact hole 15 connecting the wiring conductor 14 and the ground conductor 10 are formed on a substrate 1 thus realizing a wiring board including a passive element and a transmission line. A semiconductor chip2 formed with a high frequency transistor is flip chip bonded to a microstrip wiring on the wiring board through a signal wiring20 and a bump 40 on the chip 2. This structure easily realizes a highly accurate microstrip wiring using a semiconductor process.
- I - H01L23/12 ;H01L21/60 ;H01P3/08 ;H03F3/60

